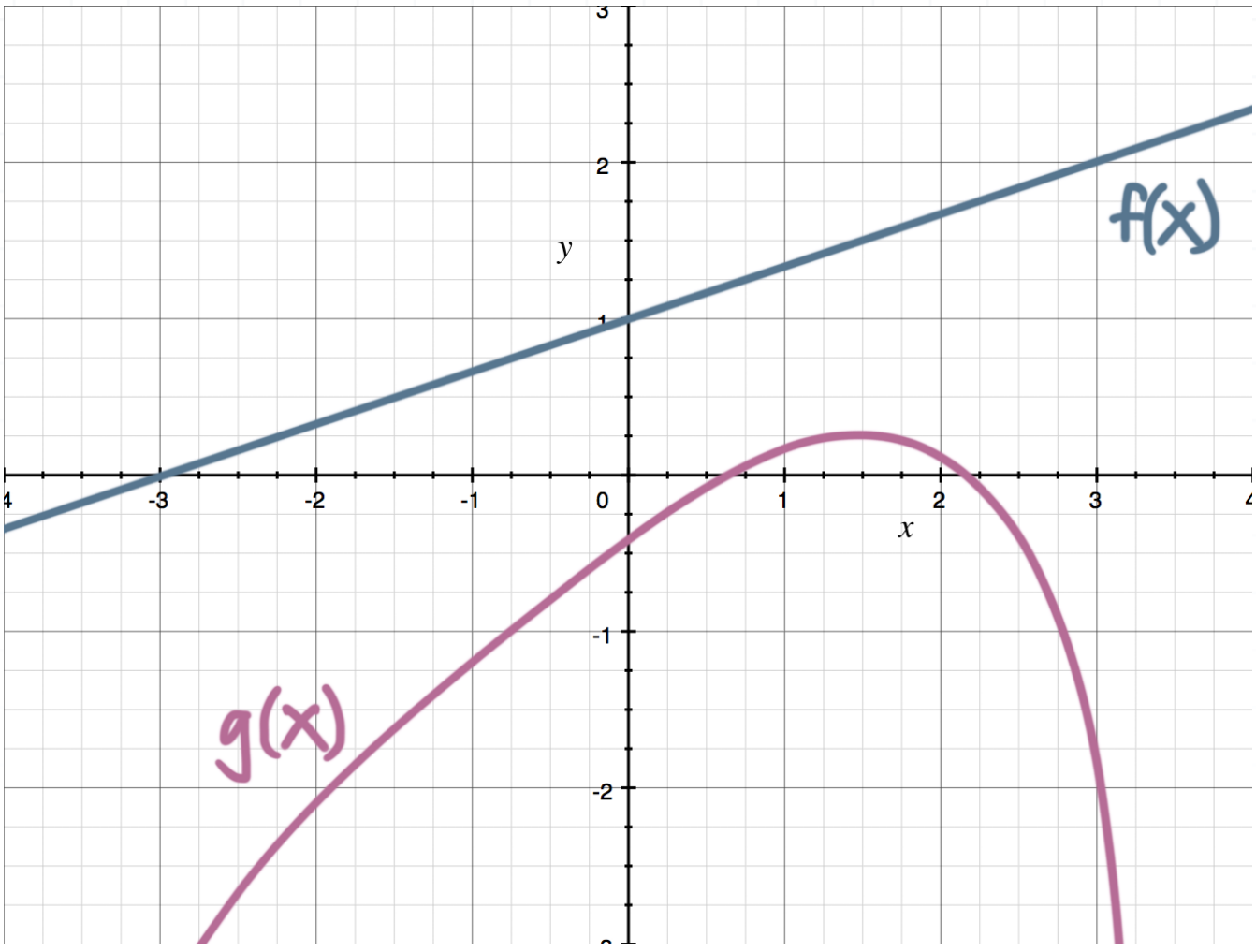
Calculus 1 Workbook

Combinations and composites

krista king MATH

LIMITS OF COMBINATIONS

■ 1. Use limit laws and the graph below to evaluate $\lim_{x\to 3}\left[4f(x)-3g(x)\right]$.



■ 2. Use limit laws and the graph below to evaluate

$$\lim_{x\to 4}\frac{h(x)}{j(x)}$$

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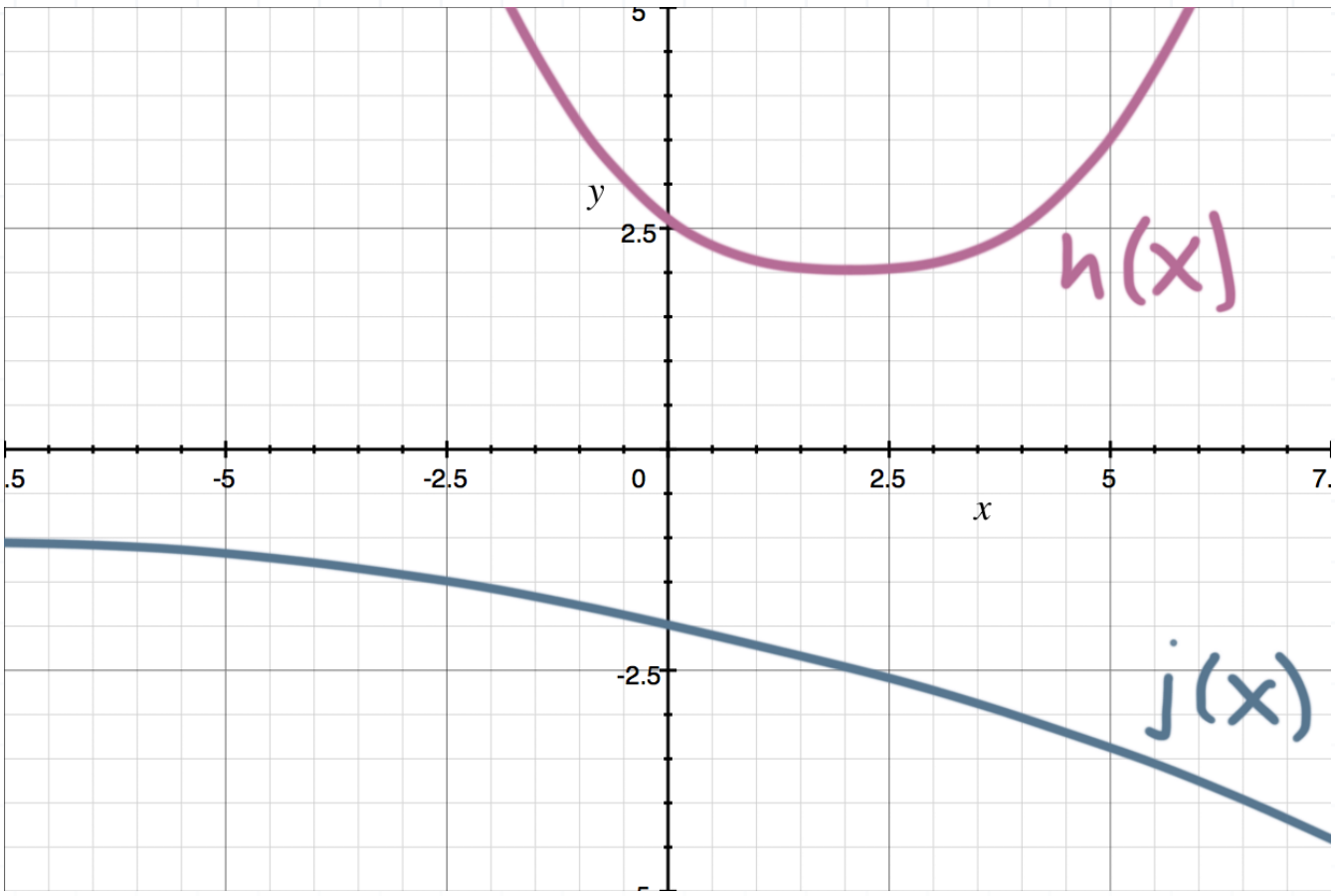
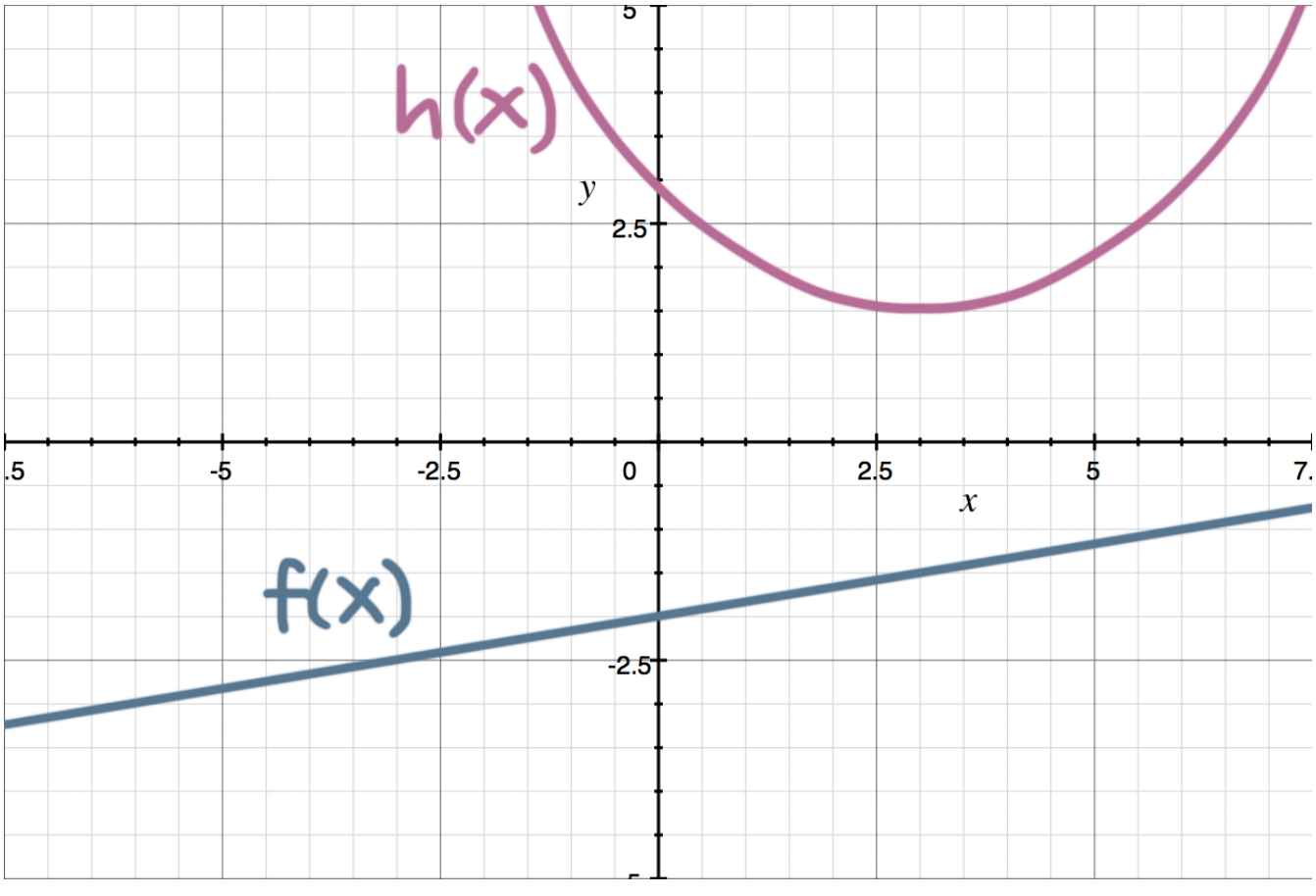


3. Use limit laws and the graph below to evaluate $\lim_{x\to 0}\left[2f(x)\cdot 3h(x)\right]$.



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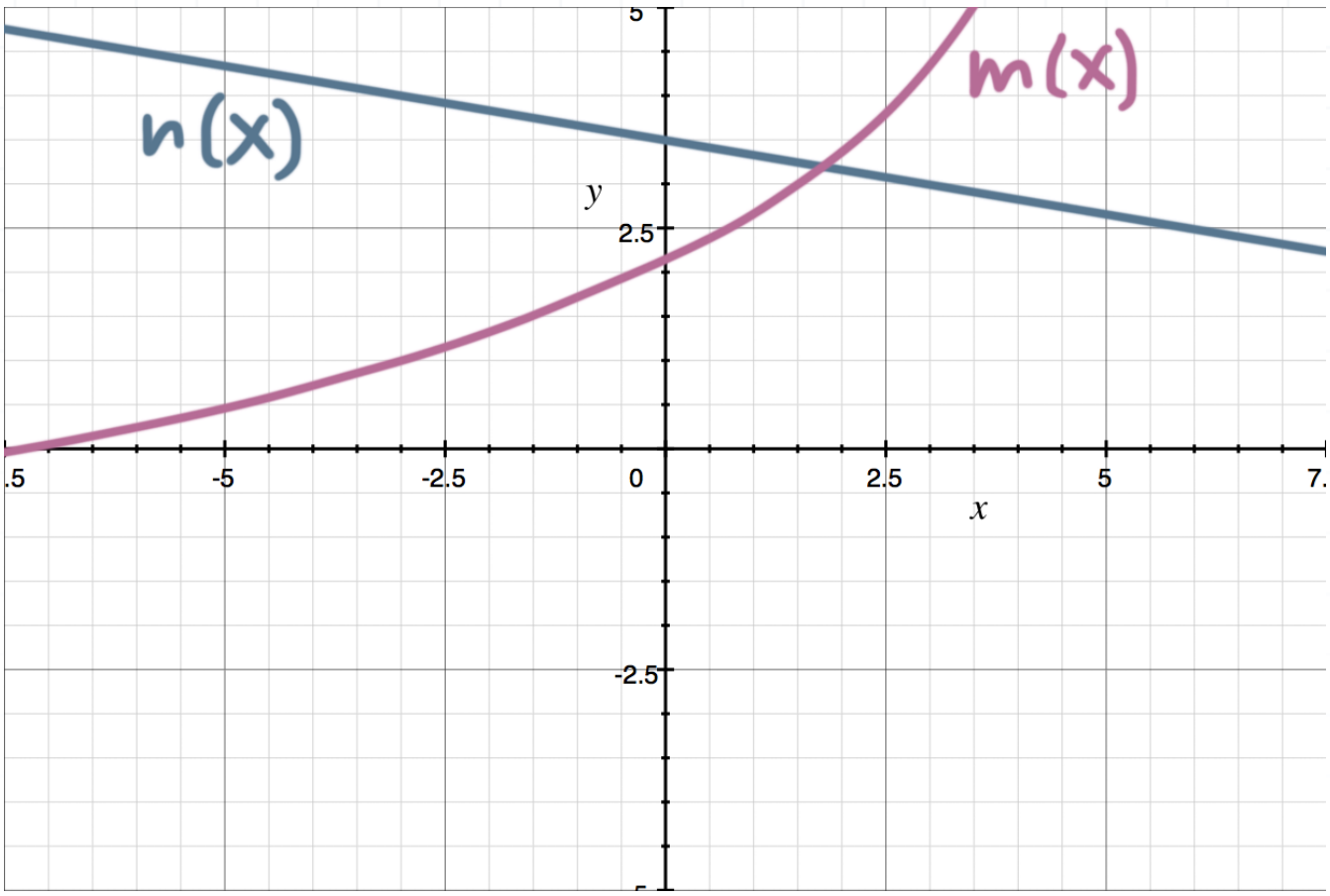
4. Use limit laws and the graph below to evaluate

$$\lim_{x\to -3}\left[\frac{5m(x)}{n(x)}-\frac{4m(x)}{n(x)}\right]$$



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LIMITS OF COMPOSITES

- 1. What is $\lim_{x \to 3} f(g(x))$ if $f(x) = 4x$ and $g(x) = 6x - 9$?

- 2. What is $\lim_{x \to -4} f(g(x))$ if $f(x) = 2x^2$ and $g(x) = 2x - 1$?

- 3. What is $\lim_{x \to \frac{\pi}{2}} f(g(x))$ if $f(x) = \sin x$ and $g(x) = x/2$?

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